

# One-Minute Energy Stars!

Reinforce ENERGY STAR® and Go Green Night messages through fun, engaging activities for families.

**Overview:** Participants rotate through six different 60-second games on their quest to become Energy Stars. Awards and/or prizes are given at the end of the event for completed activities.

### Materials:

- Energy Stars passports for each participant
- · 60-second timing device for each station
- · Other station-specific materials (see activity sheets for details)

**Description:** There are six different activities, each lasting 60 seconds. Participants receive an Energy Stars passport at the start of the event. The passport has one space for each of the six activities. Participants receive a score and/or a star for completing each activity. At the end of the evening, all completed cards are collected and one is drawn to win a door prize. You might also consider recognizing students who earn the highest scores for each game.

- 1. Dry the Laundry: Hang your clothes on a clothes line.
- Turn Off the Lights!: Roll a golf ball from "room" to "room" on a sheet of insulation board.
- **3. Pipe Insulation Puzzle:** Use pieces of foam insulation to insulate a three-foot PVC pipe.
- **4. Warm Up/Cool Down Automatically:** Sort colored cups to show how a programmable thermostat works.
- **5. Short Showers Save Gallons**: How many gallons of "hot water" will you use in 60 seconds?
- **6. Memory Master Matching Game:** Find pairs of energy efficiency tips among the cards.



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### **Dry the Laundry!**

Save energy by using wind power, not your clothes dryer, to dry your laundry.

**Object of the game:** Successfully hang up the laundry within one minute.

### Materials:

- 12 spring clothespins, numbered in pairs from 1 to 6
- 6 pieces of assorted clothing
- 10 to 20 feet of clothesline, depending on your room's setup
- · Something to mark a starting line on the floor, such as masking tape

**Setup:** Tie each end of the clothesline to a railing or other anchor point. As an alternative, have adult volunteers hold the ends. Put all the clothespins in a bag or small box. Put the clothing into a laundry basket at the "Go!" line.

**How to play:** Within one minute, hang three to six pieces of clothing on the clothesline (depending on the age of the participant) using the spring clothespins. Clothing must remain hanging until time expires.

**Optional:** For older children, require them to use matching numbered clothespins for each piece of laundry.







### **Turn Off the Lights!**

Remembering to turn off unused lights (and appliances!) when you leave a room saves on electricity consumption.

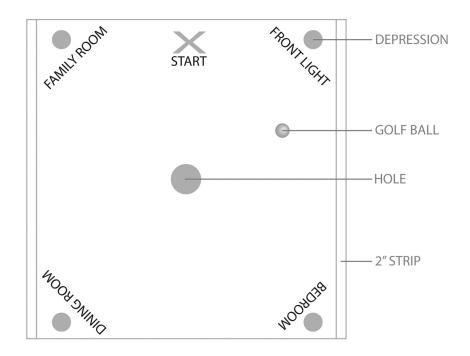
**Object of the game:** Roll the golf ball from "room" to "room" and then through the center of the game board to successfully turn off all the lights.

### Materials:

- One 4-foot-by-4-foot piece of half-inch-thick rigid foam insulation panel (half sheet, about \$6)
- Golf ball

**Setup:** Cut a strip 2 inches wide from opposite sides of the board. Glue these strips to the edges of the board to keep the golf ball from rolling off the sides. Create four depressions in the foam, one at each corner, large enough to hold the golf ball but shallow enough so the ball can roll out. (A grapefruit spoon works well for this task.) Cut a complete hole in the center of the foam sheet. Decorate the foam board as shown. Don't forget to mark "start" toward the middle point of one of the open sides.

**How to play:** Players (parent and child) each hold one end of the game board. The golf ball starts on the marked spot. Players work together to tilt the board so the golf ball moves from "room" to "room." When the golf ball has visited every room, players work to roll it through the opening in the center of the board. Players score 1 point for each room visited and a bonus of 10 points if they complete the game within 60 seconds.









## **Pipe Insulation Puzzle**

Insulating hot water pipes keeps water 2 to 4 degrees hotter so you can turn down the setting on your hot water heater.

**Object of the game:** Properly insulate your pipe within one minute.

**Note:** We are using PVC pipe for safety. Foam insulation would normally be used only on metal pipe.

### Materials:

- 6-foot section of lightweight foam pipe insulation, sized for a 1½" diameter pipe
- 4-foot section of ½" PVC pipe
- Razor blade cutting tool (box cutter)—(keep out of reach of children)
- Yardstick

**Setup:** Using the razor blade tool, cut the 6-foot section of pipe insulation into two equal pieces, each 36 inches long. Cut each 36-inch piece into various

smaller pieces, making each cut a whole number of inches. Range your pieces from 1 inch to 9 inches.

On the PVC pipe, use two strips of duct tape to mark a distance of 36 inches, leaving 6 inches at each end.

**How to play:** A parent holds the pipe by one end. A child slides pieces of foam insulation onto the pipe until the pieces exactly fill the 36-inch space marked on the pipe. The child may need to slide pieces off and replace them with pieces of another size to get it to fit just so.

**Optional:** For older children, require them to use a certain number of pieces to fill the 36-inch length.



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# Warm Up/Cool Down Automatically

Programming a thermostat correctly can save about \$180 a year in energy costs.

**Object of the game:** Successfully sort colored cups according to the time of day to demonstrate how a programmable thermostat automatically controls the temperature of your home.

### Materials:

- 8 red plastic cups
- 16 blue plastic cups
- · Black permanent marker

**Preparation:** Turn the cups upside-down and label them as shown in the chart, using the black marker. The number inside the cup is the answer key. The label on the outside of the cup represents the time of day and the temperature settings for the house in wintertime.

CUP COLOR	INSIDE#	OUTSIDE LABEL	CUP COLOR	INSIDE#	OUTSIDE LABEL
Red	1	6 a.m., 70 degrees	Red	13	6 p.m., 70 degrees
Red	2	7 a.m., 70 degrees	Red	14	7 p.m., 70 degrees
Red	3	8 a.m., 70 degrees	Red	15	8 p.m., 70 degrees
Blue	4	9 a.m., 62 degrees	Red	16	9 p.m., 70 degrees
Blue	5	10 a.m., 62 degrees	Blue	17	10 p.m., 62 degrees
Blue	6	11 a.m., 62 degrees	Blue	18	11 p.m., 62 degrees
Blue	7	12 noon, 62 degrees	Blue	19	12 midnight, 62 degrees
Blue	8	1 p.m., 62 degrees	Blue	20	1 a.m., 62 degrees
Blue	9	2 p.m., 62 degrees	Blue	21	2 a.m., 62 degrees
Blue	10	3 p.m., 62 degrees	Blue	22	3 a.m., 62 degrees
Blue	11	4 p.m., 62 degrees	Blue	23	4 a.m., 62 degrees
Red	12	5 p.m., 70 degrees	Blue	24	5 a.m., 62 degrees

**How to play:** Start with the cups randomly arranged on the table, upside-down. Parent and child have one minute to successfully sort the 24 cups into a line, according to time of day, starting with 6 a.m. No peeking inside the cup for the answer key! The EPA estimates that if you set your thermostat for energy savings, you could save about \$180 per year (average US figures). Wow!





### **Short Showers Save Gallons**

A 10-minute shower uses 25 to 50 gallons of water. A typical bathtub, fully filled, holds 40 to 65 gallons of water. A short shower or shallow bath can save many gallons of water and reduce the amount of energy needed to heat the water. This activity builds awareness of how much water is used for a typical shower.

Object of the game: Cover the parent in as many gallons of "water" as possible.

### Materials:

- 25 to 50 empty and clean gallon containers (milk or water jugs), caps taped on securely
- · Yoga mat or similar

**Setup:** Lay the yoga mat on the floor. Collect the milk jugs in large bags or boxes nearby.

**How to play:** The parent lies flat on the ground on the yoga mat. The child stacks as many water jugs on the parent as possible in 60 seconds. No part of any jug may touch the mat. The parent may assist the child in any way, including raising arms/legs, holding on to the jugs, looping fingers through jug handles, etc. At the end of 60 seconds, the parent must hold position with all jugs off the ground for three seconds. The player receives one point for every jug held off the ground. A bonus of 10 points is added if the player successfully uses all the jugs provided.







## **Memory Master Matching Game**

Play this fun card-matching game to learn about ways to save energy and go green.

**Object of the game:** Try to find each pair of matching energy-saving tips from among the cards hidden on the table.

#### Materials:

- Set of Go Green Night Memory Master cards
- Table

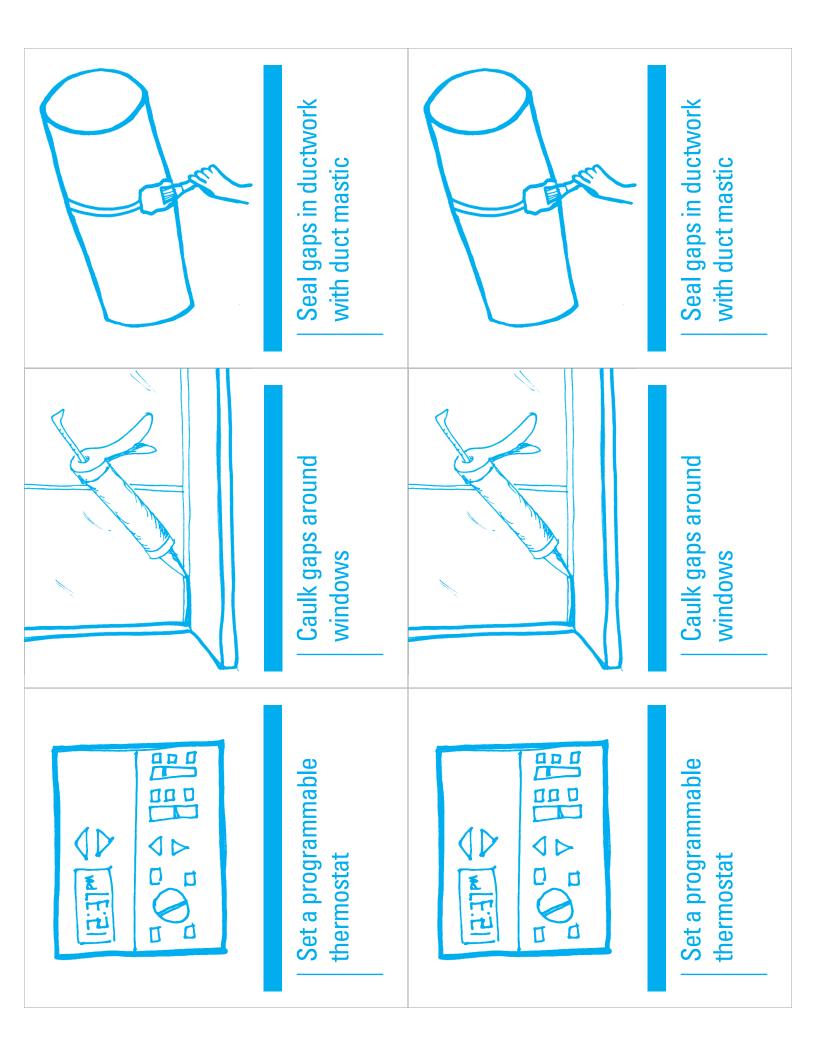
**Setup:** Before the event, photocopy the Go Green Night Memory Master cards onto card stock, double-sided. Laminate them if possible. Cut the cards apart. Mix up the cards and lay them all facedown on the table.

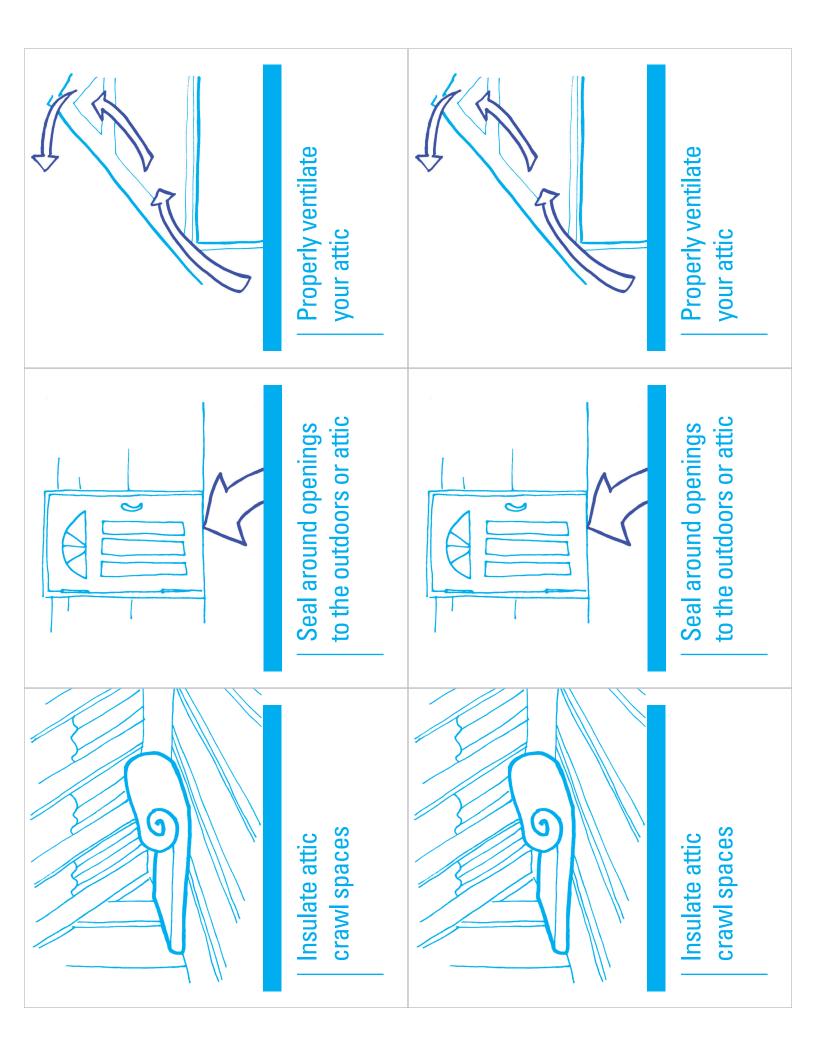
**How to play:** A player selects two cards from the game board and turns them over. If there is a match, the player removes the pair from the table and continues to seek a new pair. If there is no match, the cards are turned back over in the same spot. The player continues to seek pairs of matching cards for 60 seconds, earning one point per pair and 10 bonus points if all the pairs are found in the time allotted.

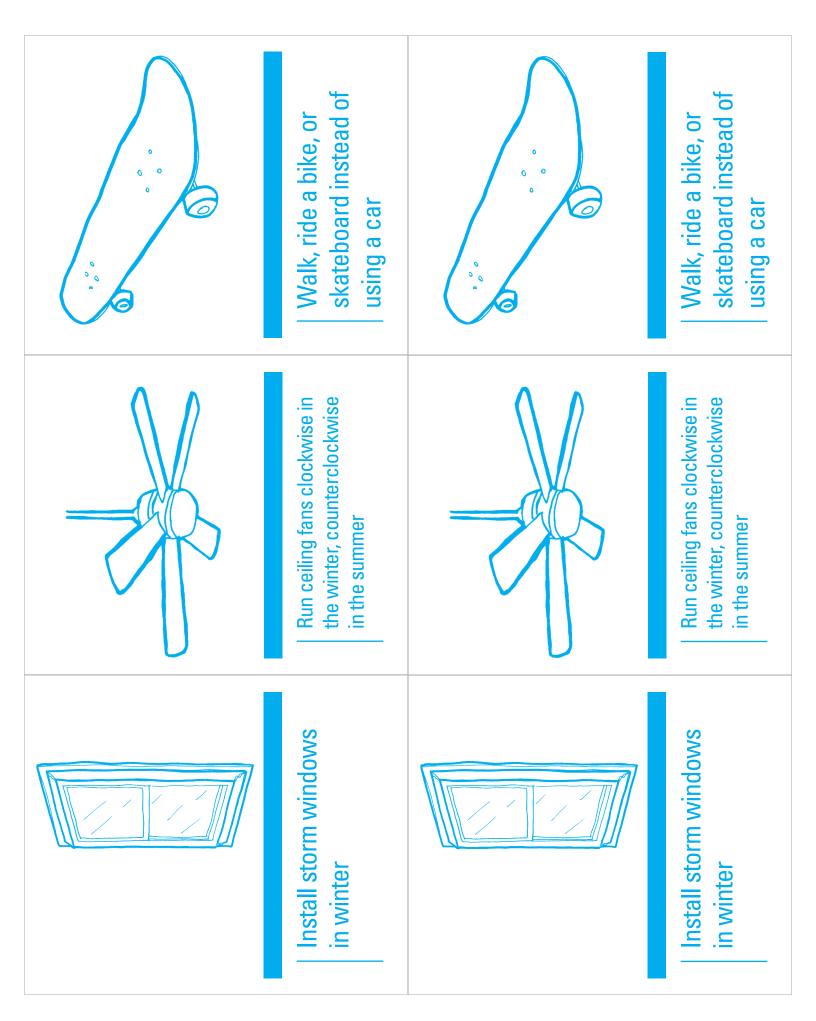
### Lessons on the cards include:

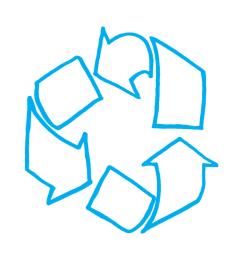
- Set a programmable thermostat
- Caulk gaps around windows
- · Seal gaps in ductwork with duct mastic
- Insulate attic crawl spaces
- · Seal around openings to the outdoors or attic
- · Properly ventilate your attic
- · Install storm windows in winter
- · Run ceiling fans clockwise in winter, counterclockwise in summer
- · Walk, ride a bike, or skateboard instead of using a car
- Reduce, Reuse, Recycle (3 R's)
- · Keep doors and windows closed when the heat or air conditioning is on
- Plant trees to shade your house from the sun
- Turn off lights when you leave the room
- Replace incandescent lightbulbs with ENERGY STAR qualified CFL bulbs
- Unplug power chargers and adapters when not in use
- Plant a vegetable garden
- Use a power strip as a central turn-off point for equipment
- · Fix leaky faucets and running toilets
- · Use both sides of a piece of paper
- · Read email messages on the screen, don't print them
- Look for the ENERGY STAR when purchasing products



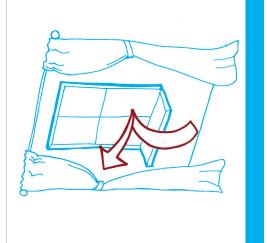








| Reduce, Reuse, | Recycle (3 Rs)



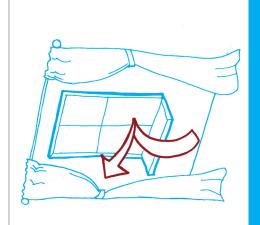
Keep doors and windows closed when the heat or air conditioning is on

your house from the sun

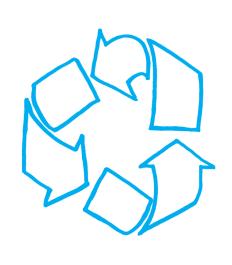
Plant trees to shade



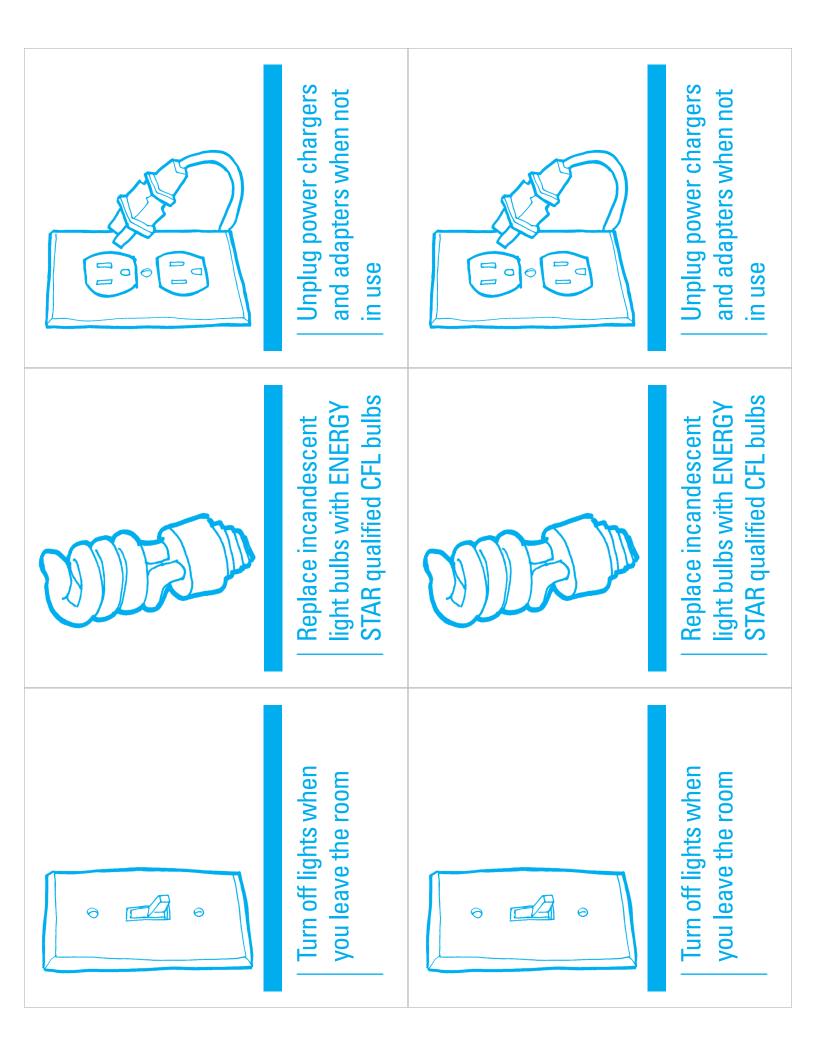
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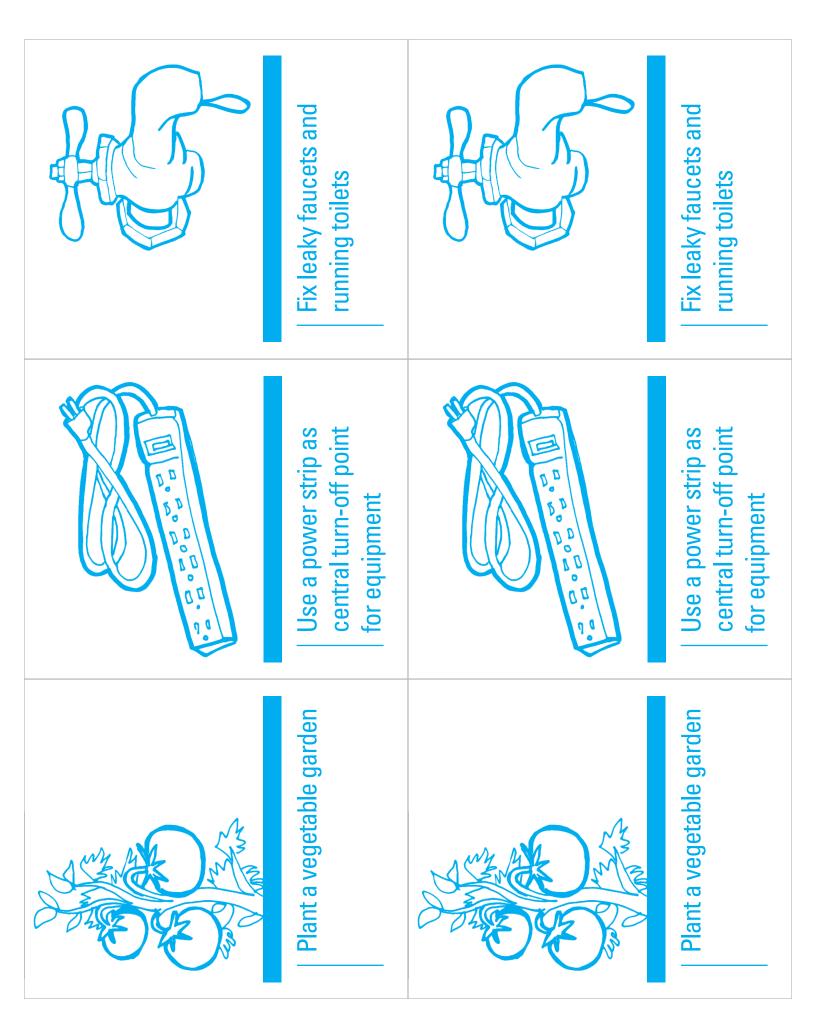


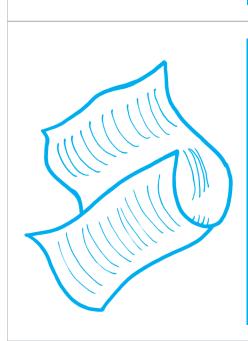
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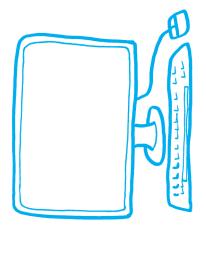
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Read email messages on the screen, don't print them

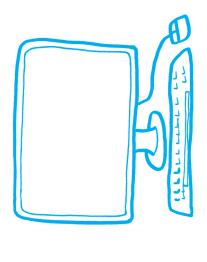
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